

STATE OF NEW HAMPSHIRE
DEPARTMENT OF ENVIRONMENTAL SERVICES (DES)
WATER DIVISION
P.O. Box 95, 6 Hazen Drive
Concord, NH 03302-0095
Telephone # (603)-271-3406,
Fax # (603)-271-7894
Email: damsafety@des.state.nh.us

APPLICATION FOR A PERMIT FOR AN EXISTING DAM

In compliance with the provisions of RSA 482:5 or RSA 482:6

APPLICANT:

hereby makes application to the Dept. of Environmental Services, Water Division (DES) for the permitting of an existing, non-permitted dam located on/adjacent to;

(Name of stream, river or Waterbody, if applicable)

in

(Name of Town or City)

(County)

A descriptive plan will accompany this application and is made a part hereof. I understand that more detailed information may be requested by the DES in compliance with RSA 482:5, and that if such information is requested it will be supplied to the DES.

The purpose of the existing dam is _____
(State use of stored water, i.e.: detention, water supply)

The maximum height of the existing structure is _____feet. (The height is the vertical distance from the lowest point of the existing ground surface on the downstream side of the structure to the highest point of the dam, which may impound water.)

The applicant **certifies** that he/she owns or has flowage rights on all lands that will be permanently or temporarily flowed by the within described dam. Under the penalties and pains of perjury, the applicant affirms that the above information, to the best of his/her knowledge, is true and correct.

DAM OWNER

Name (Type or print)

Name (Signature)

Address:

Telephone #:

Email address:

PROPERTY OWNER (If other than Dam Owner)

Name (Type or print)

Name (Signature)

Address:

Telephone #:

Email address:

There is no charge for the initial filing of this application
An additional filing fee may be required upon determination of hazard classification.

ADDITIONAL CLASSIFICATION FEE:

Class A, Low hazard - \$100
Class B, Significant hazard - \$250
Class C, High hazard - \$500

BASIC DATA

Print in Ink or type:

1. Location of existing structure: (please fill out parts a, b and c)

a. USGS Quadrangle: _____ b. Tax Map#: _____ Lot #: _____
Scale: _____ Attach copy of Tax Map
(Upper, Lower) Circle appropriate corner
(Right, Left) reference within parenthesis c. Latitude: _____
Longitude: _____
_____ Inches (up, down)
_____ Inches (left, right)

2. Drainage area: _____ (acres/sq. mi.)

3. Pond area at: normal stage: _____ acres. Maximum stage: _____ acres.

4. Artificial storage capacity at normal stage: _____ ac-ft. Maximum stage: _____ ac-ft.

5. Length of dam (measured along the top of existing structure): _____ ft.

6. Description of existing dam structure: (i.e. – earth embankment w/concrete spillway)

7. Description of material on which dam is constructed: (i.e. – ledge, glacial till)

8. Description of all outlet works: (spillways, pond drains, drop inlets, emergency spillways, etc.)
Include appropriate lengths, widths, diameters and elevations.

9. Design storm frequency: 50-year 100-year 0.30 PMP 0.50 PMP PMP (circle appropriate storm)

10. Design storm inflow: _____ cfs routed from _____ cfs Remaining freeboard: _____

Hydrology program used: _____

11. Discharge capacity: _____ cfs –no operations, to top of dam
_____ cfs – 1 foot of freeboard, no operations
_____ cfs – full operations to top of dam

12. Describe the downstream reach. Are any habitable structures, roadways, utilities, railroads, or other properties downstream of the dam that may be impacted by a failure of the dam?

The information on or submitted with this application should be as complete as possible. The attached sheet will assist the applicant in submitting an existing dam application that is as complete as possible. Additional and more specific information and design requirements are included in the NH Code of Administrative Rules, Chapter Env-Wr 100 – 800, which can be obtained from our office or viewed at <http://www.des.state.nh.us/dam/env-wr100-800.html>

DAM CONSTRUCTION/RECONSTRUCTION APPLICATION CHECK LIST

☐ Completed dam construction/reconstruction application with initial app fee - \$250. All applications

must be signed by the owner of the property and the owner of the dam, if different. Additional classification fee may be requested by DES following a preliminary review of the application. This is dependent upon the hazard classification assigned to the dam: class A - \$250, class B - \$750, class C - \$1,000.

- ☐ Location map sufficient in detail to locate project
- ☐ Written Operation & Maintenance Plan (see attached guidelines)
- ☐ Results of any subsurface explorations
- ☐ Results of all structural analyses, which may include but not be limited to, stability analyses for overturning, sliding and slope failure
- ☐ Results of hydrologic & hydraulic calculations, which show the dam has the capacity to safely discharge the design storm with 1' freeboard without manual operations; class AA-Q50, class A-Q100 or 0.30PMP, class B-0.50 PMP, class C-PMP. Include the stage-discharge table and stage-storage table for the outlet structure.
- ☐ Present documentation proving ownership of flowed land or flowage rights, in accordance with Env-Wr 305.10 (j).
- ☐ Results of a seepage analysis (for class B & class C dams only)
- ☐ Draft EAP (for class B or C dams only)

Construction plans and specifications, which meet our rules and guidelines:

- ☐ To-scale plan view
- ☐ To-scale cross section of dam through outlet; showing elevations, watertight connections, etc.
- ☐ 2.5:1 minimum side slopes for earth embankments; 3:1 preferred
- ☐ Minimum top width of 6' for earth embankments; 8' preferred
- ☐ Gradation analysis for all soils
- ☐ Compaction specifications with maximum lift thickness – Minimum 95% of Modified Proctor Compaction requested
- ☐ Earth emergency spillway in natural ground
- ☐ Pond drain (not required for class AA dams but recommended)
- ☐ Design stamped by PE licensed in NH (not required for class AA dams)
- ☐ Construction sequence
- ☐ Construction inspection plan, subject to ENV-Wr 501.02
- ☐ Plans should be suitable for use for construction purposes

The information included on this sheet is intended to assist the applicant in submitting an initial application that is as complete as possible. Additional and more specific information and design requirements are included in the NH Code of Administrative Rules, Chapter Env-Wr 100 – 800, which can be obtained from our office or viewed at <http://www.des.state.nh.us/dam/env-wr100-800.html>.

January 2003

RECOMMENDED GUIDELINES FOR PREPARING A WRITTEN OPERATION & MAINTENANCE PLAN

Seasonal Operation

- Control of summer water level – maintaining a specific reservoir, pond or lake water level
- Fall water level drawdown procedure to allow for spring runoff, if any
- Spring time operations to return water to recreation level

Maintenance Program

Listing of periodic maintenance performed to maintain dam and facilities in a safe operational condition, such as:

- Removal of tree and brush growth from earthen embankments and abutments when needed
- Establish an operational plan for operating gates and lubricating lifting mechanisms
- Repairing or replacing operating mechanisms of outlet works that are inoperable
- Removal of debris from intake structures and spillways periodically to maintain clear openings
- Clearing of upstream and downstream channels when needed to maintain a free flowing condition
- Replacement of wooden structural members which may be deteriorated as needed
- Visual inspection for seepage and subsequent monitoring of any active seepage to be done on a frequently scheduled basis – bi weekly
- Maintaining exposed steel in a well painted state
- Repairing with suitable material and earthen section experiencing erosion and maintain proper vegetation on earthen embankments to ensure erosion protection
- Repairing of spalled or eroded concrete surfaces
- Testing of Emergency Action Plan (EAP) for class B or class C dams

Emergency Contact Person

The DES maintains a list of emergency contact personnel for all potentially hazardous dams. This should include the name and telephone number of key personnel and should be up-to-date.

Items to consider

- Dam operations under emergency conditions – establish responsibility of dam operation and a lake or pond reservoir regulation plan to be implemented under emergency conditions
- Local warning system – communication to residents in flood area by local authorities or dam operators, of imminent danger to allow time to evacuate area.

(SKETCH OF DAM)